

***In the Drawings***

Please replace all of the drawings with the substitute set of drawings provided herewith and labeled "substitute drawings."

*(please proceed to next page)*

**REMARKS*****In the Drawings***

FIGS. 1 through 4 have been amended to include more details of the apparatus as described in the specification and in the claims. In particular, FIG. 1 has been amended to include optical pulses P0, P1 and P2 and Stokes light pulses SL and SR. Also, the atomic ensembles L and R are now shown more clearly as being contained in cells 50 and 60, respectively. Similar changes have been made to FIGS. 2-4, along with the addition of electrical signals S280 and S281 (FIG. 2), and S490 (FIG. 4).

Replacement drawings for FIGS. 1-4, including a marked-up copy with the changes indicated in red, are included herewith.

***In the Claims***

Claims 1-6, 9-13 and 15-54 have been amended, and claims 4, 7, 8, and 14 have been canceled. A new independent claim 57 has been added. The additional fee associated with adding an additional independent claim is included with this Amendment.

The claims have been amended to more clearly set forth Applicant's invention as described in the substitute specification (filed along with this Amendment), and shown in the Figures, and to bring the claim language into accord with USPTO claim drafting practice. The claims as amended, along with the new claim, should be much easier to read and examine than the originally presented claims.

**CONCLUSION**

Applicant respectfully requests entry of the Amendments to the drawings, specification, Abstract and claims as provided hereinabove.

The Examiner is encouraged to contact the Assignee's authorized representative at 941-378-2744 to discuss any questions that may arise in connection with this Preliminary Amendment.

Respectfully Submitted,

Date: October 18, 2005

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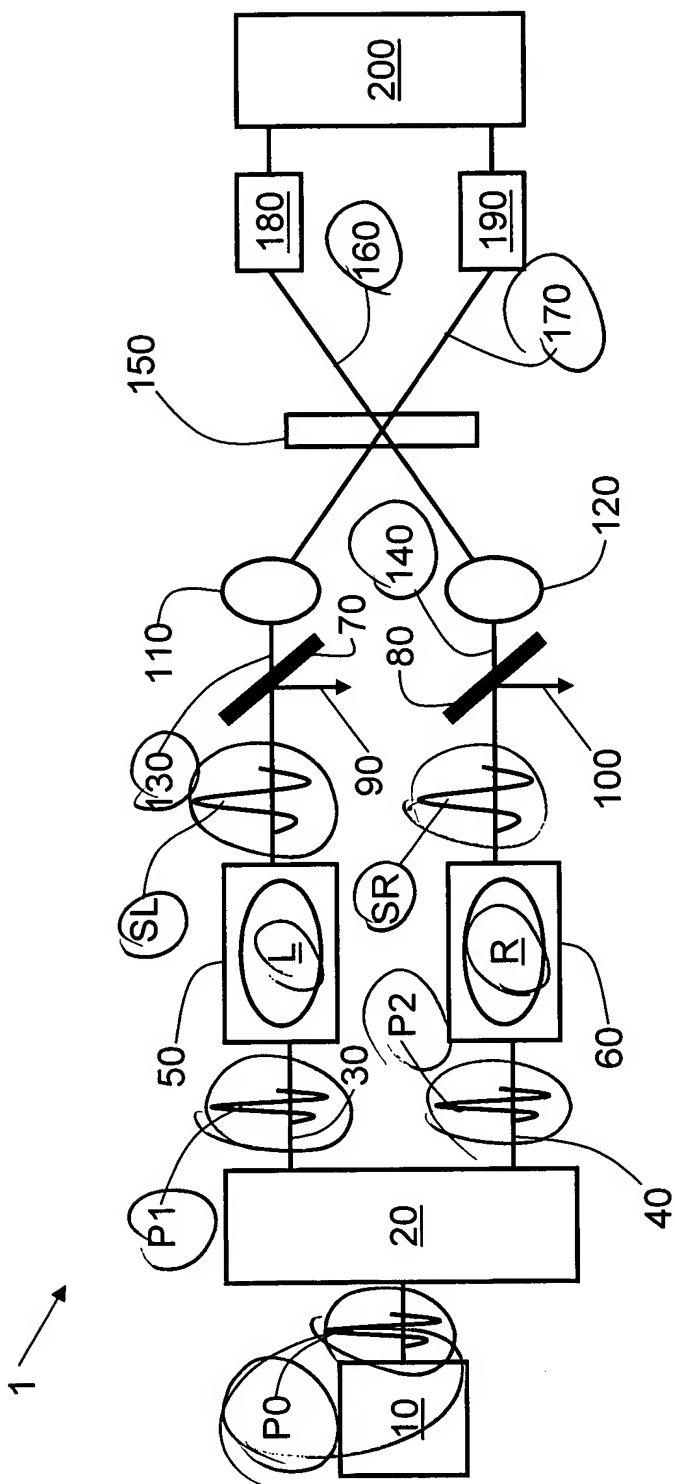


FIG. 1

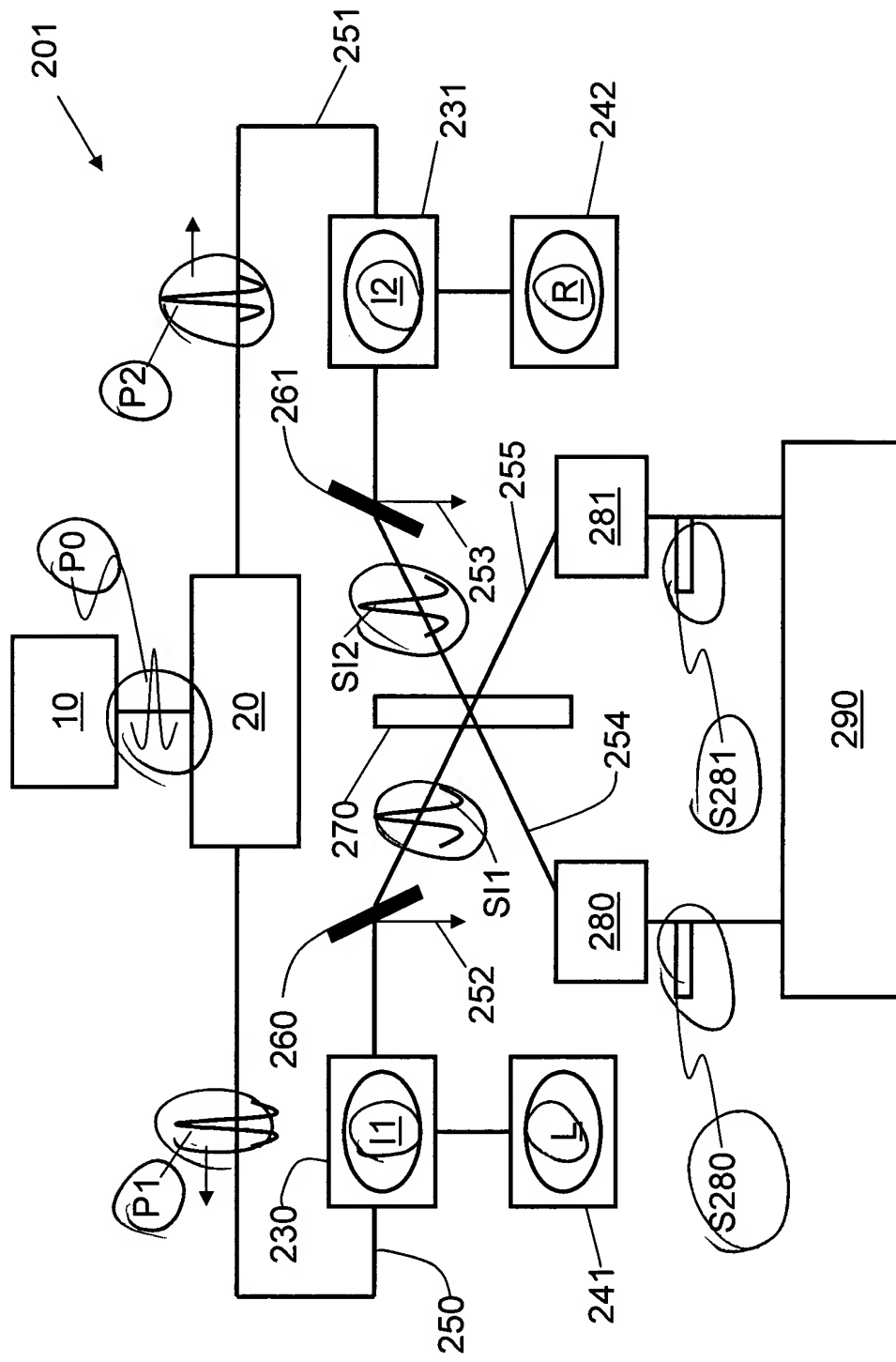


FIG. 2

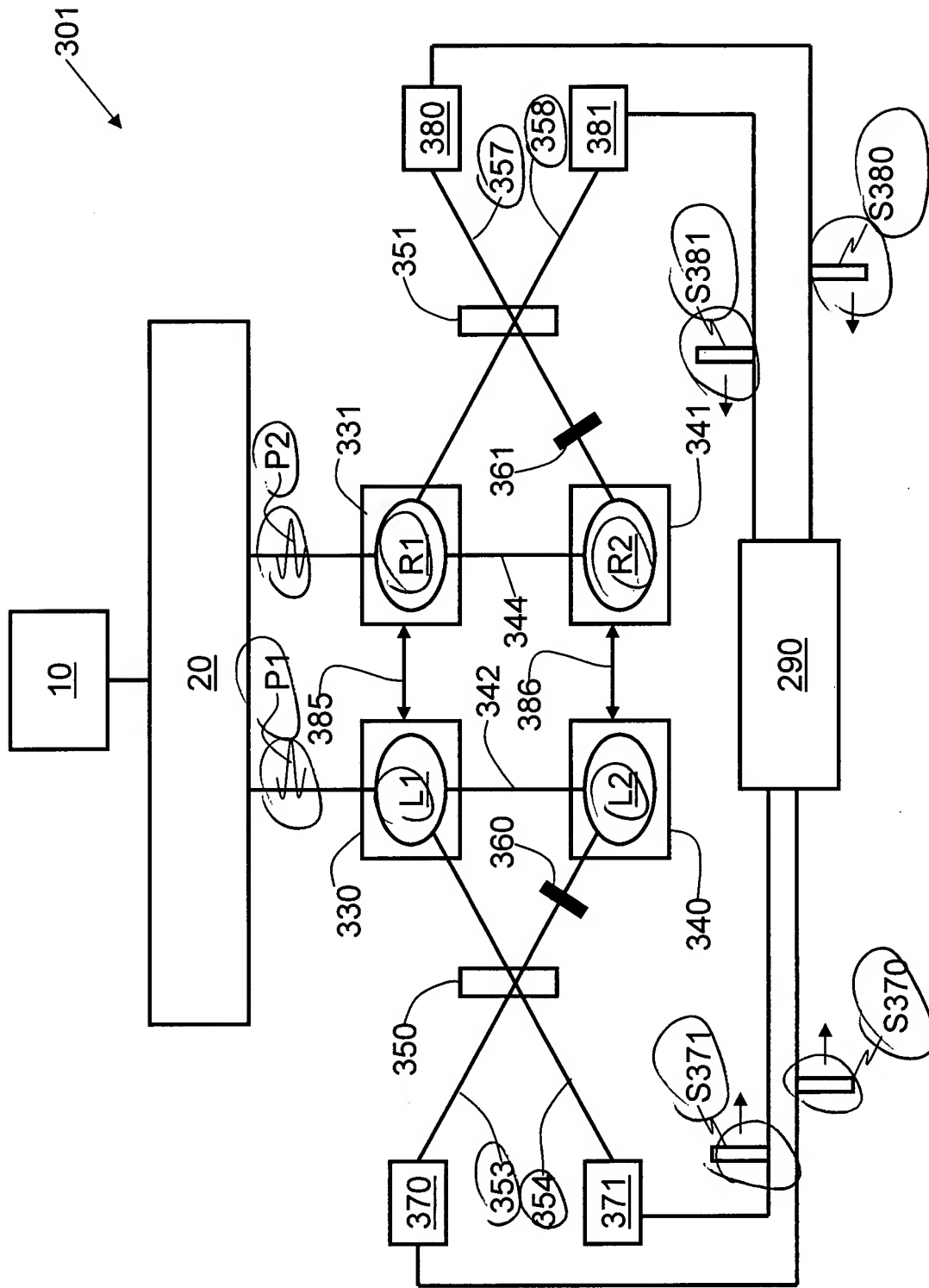


FIG. 3



**FIG. 4**